Model Rockets

I want to extend a big Texas "Thank you!" to John Ross, the director of the Fort Hays State University Forsyth Library in Kansas. He provided space on the FHSU library server for this site from 2002-2008. I've since moved to a commercial server, but I wanted to make sure that John and FHSU get thanked for helping me out during those years.

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I guess you could call me a lapsed BAR (Born Again Rocketeer). I first started flying model rockets back in the mid 1960's with Estes rockets. I kind of fell out of the hobby when I went off to college and a subsequent career. But then I started building and flying rockets again at the beginning of 1995. I also got involved with the Austin Area Rocketry Group, a chapter of the National Association of Rocketry. Since about 2002, though, I've pretty much been out of the hobby (I got married!), other than occasional updates to this website. Perhaps someday I'll build and fly something again.

Phase One

During my first incarnation as a rocketeer, I flew your basic Estes stuff. My favorite rocket was a scale model of the *Thor-Agena*, until it sheared a fin during ascent outside of Big Bend. But I really liked the idea of launching a camera on a rocket, so I got a *Camroc*. This was a camera that mounted onto the nose of a rocket and took one picture per flight. Out of six flights, I got two photos, both of the same general area. It's a view of my home town, Cranfills Gap, Texas. The main highway, Texas State Highway 22, runs across the top of the photo. The other roads are 'city' streets. East is at the top of the picture, north is to the left. This was taken in July 1973.

Rebirth

My first launch in 20 years or so occurred sometime in February 1995. Our group didn't have a name then, but I've since dubbed us *Three Guys with Rockets* (Bob Breeze, Jim Darrah and myself). I flew an Estes TurboCopter and a Quest DC-Y Space Clipper. Bob flew an Estes Phoenix, an Estes Comanche and the big Estes Saturn V. Jim flew an Estes Airwalker and chased down rockets that blew away in the breeze. We lost Bob's Comanche to a power line. The engine ejection charge blew a big hole out the side of the TurboCopter on its fourth flight. But I had gotten a taste of black powder again.

Selected launch fotos

TurboCopter

Phoenix

Saturn V

The Continuing Saga

More launch reports and fotos

- **Hearts & Darts 2000**
- **Launch report: 3/26/95**
- **Launch report: 5/28/95**
- **Launch report: 8/27/95**
- **Launch report: 4/7/96**
- **Launch report: 5/26/97**
- **Launch report: 1/17/98**
- **HART Launch report**
- **1995 HOT launch fotos**
- **The Ninfinger Fleet**
- **Oracle Flights: 11/26/09**
- **Robert Goddard wing of the Roswell Museum**
- **Rockets and launch vehicle photos**
- **Fotos of the International Space Hall of Fame**
- **White Sands Missile Garden**

FAQs, building tips, hints, reviews, and other inanities

- Vostok from *The Art of Scale Model Rocketry*
- Juno I (PMC)
- Centuri body tube sizes
- Estes body tube sizes
- Quest body tube sizes
- Estes Honest John
- Estes Saturn 1B
- Estes Saturn V
- Estes Mercury Atlas
- Estes Model Rocketry Manual
- Fin finishing technique
- rec.models.rockets FAQ
- How I Built My Rastrocam
- Payloads FAQ
- Resin casting primer
- Guidance and Control Systems FAQ
- Scaleroc email list abridged archives

BAR memories: Model rocket catalogs and stuff

- Centuri publications
  - American Rocketeer, Vol. 4, No. 1
  - Centuri/Enerjet Motor Operating Manual
  - Centuri Flying Saucer Flyer
  - Centuri Model Rocket Club Guide
  - Centuri Model Rocket Designers Manual
  - Centuri Power System Handbook
  - Centuri Rocket Times Design Contest Winners
  - Centuri Super C Technical Information Report
  - 1962 Centuri Catalog
  - 1964 Centuri Catalog
  - 1965 Centuri Catalog
  - 1966 Centuri Catalog
  - 1967 Centuri Catalog
  - 1968 Centuri Catalog
  - 1969 Centuri Catalog
  - 1970 Centuri Christmas Catalog
  - 1971 Centuri Catalog
  - 1972 Centuri Catalog
  - 1973 Centuri Catalog
  - 1974-75 Centuri Catalog
  - 1974 December Centuri Rocket Times
  - 1975 Centuri Catalog
  - 1975 January Centuri Rocket Times
  - Summer 1975 Centuri Rocket Times
  - 1975 Special Centuri Rocket Times
  - 1975 Special Aerospace Team Centuri Rocket Times
  - 1975 Fall Special Centuri Rocket Times
  - 1975-1976 Winter Centuri Rocket Times
  - 1976 Centuri Catalog (No. 761)
  - 1976 Centuri Catalog (No. 762)
  - 1976 Centuri Catalog (No. 763)
  - 1976 Spring Centuri Rocket Times
  - 1976 Spring/Summer Special Centuri Rocket Times
  - 1976 Fall Centuri Rocket Times
  - 1976 Fall/Winter Centuri Rocket Times
  - 1977 Centuri Catalog (No. 771)
  - 1977 Centuri Catalog (No. 772)
  - 1977 Spring/Summer Centuri Rocket Times
  - 1977 Fall/Winter Centuri Rocket Times
  - 1978 Centuri Catalog (No. 781)
  - 1978 Centuri Catalog (No. 782)
  - 1978 Spring/Summer Centuri Rocket Times
  - 1978 Fall/Winter Centuri Rocket Times
  - 1979 Centuri Catalog
  - 1980 Centuri Catalog
  - 1981 Centuri Catalog
  - 1982 Centuri Catalog
  - 1983 Centuri Catalog
- Estes publications
  - 1960 Estes Catalog
  - Second 1961 Estes Catalog
  - 1963 Estes Catalog

- 1964 Estes Catalog
- 1966 Estes Catalog
- 1967 Estes Catalog
- 1968 Estes Catalog
- 1969 Estes Catalog
- 1970 Estes Catalog
- 1971 Estes Citation Catalog
- 1971 Estes Catalog
- 1971 Estes Fall Catalog
- 1972 Estes Catalog
- 1973 Estes Catalog
- 1974 Estes Catalog
- 1974 Estes Custom Parts Catalog
- 1975 Estes catalog
- 1976 Estes Catalog
- 1976 Estes Christmas Catalog
- 1977 Estes Catalog
- 1977 Estes Christmas Catalog
- 1978 Estes Catalog
- 1978 Estes Summer Catalog
- 1979 Estes Catalog
- 1980 Estes Catalog
- 1981 Estes Catalog
- 1981 Estes Retailer Catalog
- 1982 Estes Catalog
- 1982 Estes Summer Catalog
- 1983 Estes Catalog
- 1984 Estes Catalog
- 1985 Estes Catalog
- 1986 Estes Catalog
- 1987 Estes Catalog
- 1988 Estes Catalog
- 1989 Estes Catalog
- 1990 Estes Catalog
- 1991 Estes Catalog
- 1992 Estes Catalog
- 1993 Estes Catalog
- 1994 Estes Catalog
- 1995 Estes Catalog
- 1995 Estes Ad & Clip Art Book
- 1996 Estes Catalog
- 1997 Estes Catalog
- 1997 Estes Mini-Catalog Activity Book NEW 12/24/19
- 1997 Estes Rocketeers Guide NEW 12/28/19
- 1998 Estes Catalog
- 1999 Estes New Product Catalog NEW 11/10/19
- 2003 Estes Catalog
- Estes Rocketronics Catalog
- Aerospace Education and Model Rocketry - Second Edition
- The Alpha Book of Model Rocketry
- The Alpha Mini-Book of Model Rocketry NEW 1/12/20
- Cineroc Dimensions
- Estes Industries Guide for Rocket Clubs
- Estes Industries Technical Report No. TR-1 - Rocket Stability
- Estes Industries Technical Report No. TR-2 - Multi-Staging
- Estes Industries Technical Report No. TR-7 - Front Engine Boost Gliders
- Estes Industries Technical Report No. TR-8 - Model Rocketry Study Guide
- Estes Industries Technical Report No. TR-9 - Designing Stable Rockets
- Estes Model Rocketry
- Estes Postcards
- How Cold Propellant Rockets Work NEW 12/28/19
- Industrial Arts Teachers Manual for Model Rocketry
- Model Rocket News ad inserts
- Model Rocketry - The Educational Space Age Hobby
- Publication Aids Available for Model Rocketry
- RecRoc -- Recreational Rocketry
- Suggested Projects in Model Rocketry
- Transroc Owner's Manual
- Why Model Rocketry?

- **Other companies**

  - The 4-H Aerospace Program
  - 1987 AAA Model Aviation Fuels Catalog
  - 1976 Aeronautic & Space Company Catalog
  - 1990 Aerotech Catalog
  - 1992 Aerotech Catalog
  - 1994 Apogee Components Catalog
  - 1971 Astro Communications Telemetry Kits Catalog
  - May 1970 Astronautic Modeler
  - 1969 BoMar Catalog
  - Building a Safe Rocket Powered Model of the Snark Missile
  - 1967 AMROCS Catalog
  - 1973 AVI Catalog

- 1974 AVI Sale Catalog
- 1978 Canaroc Catalog
- 1980 Canaroc Catalog
- 1972 Competition Model Rockets Catalog
- 1987 Competition Model Rockets Catalog
- 1980 Composite Dynamics Catalog
- 1981 Composite Dynamics Catalog
- 1972 Cox Catalog
- Cox Handbook of Model Rocketry
- Cox Rocketry Science Handbook
- 1982 Crown Rocket Technology Catalog
- 1994-95 Custom Rocket Catalog
- 1998 Custom Rocket Catalog
- Catalog page for Enerjet 8 motor
- 1972 Enerjet Catalog
- 1989 Enertek Catalog
- Flying the Cineroc
- 1967 FSI Catalog
- 1970 FSI Catalog
- 1971 FSI Catalog
- 1977 FSI Catalog
- 1979 FSI Catalog
- 1983 FSI Catalog
- 1985 FSI Catalog
- 1986 FSI Catalog
- 1988 FSI Catalog
- 1990 FSI Catalog
- 1993 FSI Catalog
- 1996 FSI Catalog
- Hardan Manufacturing Company Catalog
- Kopter Rotary Recovery Rockets Catalog
- 1986 LOC Catalog
- 1987 LOC Catalog
- 1989 LOC Catalog
- 1969 Model Rocket Industries Catalog
- Model Rocketry advertisements
- Model Rocketry magazine
- MPC Pilgrim Observer insert
- MRC Model Rocket Catalog
- MRC Concept II Catalog
- NAR Literature
- 1986 North Coast Rocketry Catalog
- 1987 North Coast Rocketry Catalog
- 1989 North Coast Rocketry Catalog
- 1990-1991 North Coast Rocketry Catalog
- 1992 North Coast Rocketry Catalog
- 1994 North Coast Rocketry Catalog
- 1996 North Coast Rocketry Catalog
- 1982 Nova Research Associates Catalog
- 1993 Orion Rocket Works Catalog
- 1983 Orion Supply Company Catalog
- 1982 Pine Cap Associates Catalog
- Public Missiles Limited Catalog #5
- 1990 Public Missiles Limited Catalog
- 1992 Quest Catalog
- 1993 Quest Catalog
- 1994 Quest Catalog
- 2000 Quest Catalog NEW 11/10/19
- 1988 Ravenna Rocket Research Composite Motors Catalog
- 1987 Reaction Labs Catalog
- Reese Industries RC-1 Catalog
- Rocket Development Corporation Ballistics Manual
- 1966 Rocket Development Corporation Catalog
- 1967 Rocket Development Corporation Catalog
- 1968 Rocket Development Corporation Catalog
- 1992-93 Rocket R&D Catalog
- Space Age Industries Catalog
- SR-71 Blackbird Flyer
- 1990 THOY Catalog
- US Rockets AIR-1: Motor Installation
- US Rockets AIR-2: Clustering
- US Rockets AIR-3: Staging
- US Rockets AIR-4: Ace Fugue Shroud Method
- US Rockets AIR-5: Boosted Dart Theory
- Vashon Industries Catalog
- Vashon Industries Catalog #3
- Vashon Industries Technical Report TR-5105
- Vashon Industries Viking Two Stage Rocket Manual

Other model rocketry web sites:

- **Clubs and personal pages:**
  - A4/V2 Resource Site
  - All About Model Rockets and Blake
  - Austin Area Rocketry Group
  - BARCLONE
  - Ben Bentley's Rocketry Website
  - Centuri Memories
  - Cloned Rockets Central
  - CMASS
  - Colorado Springs Rocket Society
  - DARS page
  - ElSurfo Model Rockets
  - Encyclopedia Astronautica
  - Essence's Model Rocketry Reviews
  - European Model Rocketry
  - Geoff's Place - Model Rocket Opinions
  - George Gassaway's Rocketry Page
  - Greg's Rocket Page
  - Hamman Hobby House
  - HART page
  - Hill Country Tripoli
  - Home Hobbies: A Review Guide of Model Rocketry NEW 4/18/19
  - JimZ Rocket Plans
  - John Pursley's Rocketry and Spacemodel page
  - JP Aerospace page
  - Kansas City Association of Rocketry
  - LUNAR, Livermore Unit of the NAR
  - Mark, Donna, and Brittany's Rocket Page
  - Meatball Rocketry
  - Model Rocket Boats
  - Model Rocket Building Techniques
  - Model Rocketry Flight and Resources
  - National Association of Rocketry
  - Online Schools Library: Science - A Guide to Amateur Rocketry
  - rec.models.rockets ftp archives
  - Rio Grande Valley Rocket Club
  - Rocketry Online!
  - Sergiy's Rocket Page
  - The Utah Rocket Club
  - Vashon Valkyrie Freon Model Rocket Story
  - Wilhelm Aerospace Engineering Company
  - Ye Olde Rocket Plans
  - WOOSH - Wisconsin Organization of Spacemodeling Hobbyists

- **Business related**
  - 321Rockets.com
  - Advanced Rocketry Group
  - Aerospace Speciality Products
  - Apogee Components
  - Balsa Machining Service
  - Commonwealth Displays Rocketry Supplies
  - Countdown Hobbies
  - Custom Rocket Company
  - Discount Rocketry
  - eHobbies
  - Estes Rockets
  - FlisKits, Inc.
  - Glow in the Dark Paint and Powder
  - Hobbylinc
  - Internet Hobbies
  - Jerry's Electronic Gizmos
  - JonRocket.com
  - KosRox
  - The Launch Pad
  - Launch Magazine Oneline
  - Magnum Rockets, Hobbies & More Inc.
  - Moldin' Oldies
  - NCP Hobbies
  - Neubauer Rockets
  - Pemberton Technologies
  - Pratt Hobbies
  - rconline.net - the German speaking RC portal
  - Red River Rocketry
  - Rocketarium
  - The Rocket Garden
  - Rocket Silo
  - Rocket Vision
  - Rogue Aerospace
  - Saturn Press
  - Scale Rockets
  - Shrox Industria
  - Sirius Rocketry

- Sticker Shock 23
- Sunward Aerospace Group, Ltd.
- Tango Papa Decals
- Timeless Hobbies
- True Modeler's Rocket Kits
- Uptown Sales, Inc.
- US Rockets
- ValueLand Hobby Mall

- **Model Rocket Auction Pages:**

  - Ye Olde Rocket Shoppe

Other Ninfinger Production pages:

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